NAVAL AIR STATION (NAS) ALAMEDA RESTORATION ADVISORY BOARD MEETING SUMMARY

Building 1, Suite #140, Community Conference Room
Alameda Point
Alameda, California

Tuesday, 03 November 1998

ATTENDEES:
See the attached list.

MEETING SUMMARY

I. Approval of Minutes

John Spafford, Community Co-chair, began the meeting at 7:10 p.m. and welcomed all attendees. He proposed that a potluck dinner be held on at the next RAB meeting on December 1. This proposal received approval and Steve Edde, Navy Co-chair, offered to include a reminder of this event in the Alameda Point Monthly Activity Report. Lisa Fasano, East Bay Public Affairs and Community Relations, asked if there were any concerns about her taking some digital photographs during the meeting for an annual report to Washington regarding RAB activities. No concerns were voiced.

Mr. Spafford called for comments on the October 06 meeting minutes. Stephen Krival noted in the minutes a statement made by Jim Haas, U.S. Fish and Wildlife Service (USFWS), that *"in California, the governor has opted to split authority between two agencies – the Secretary of the California Resources Agency, sub-delegated to the California Department of Fish and Game, who oversees the wildlife and fisheries resources; and the Secretary of the California EPA, sub-delegated to the Department of Toxic Substances Control, who oversees abiotic resources (water, minerals, soil)"*. Mr. Krival inquired whether the Regional Water Quality Control Board (RWQCB) shares sub-delegation of abiotic resources along with the Department of Toxic Substances Control (DTSC). As Mr. Haas was not present to respond to this question, Michael Torrey moved to make the changes to this particular section of the minutes pending Mr. Haas' clarification of the question. No other changes were requested.

II. Co-Chair Announcements

Mr. Edde distributed a copy of the November 3, 1998 issue of the Alameda Point Monthly Summary Sheet, and reported the following items:

- Spent projectiles from 20 mm aircraft guns were discovered in the Site 1 pistol range which will delay the site radiological survey.

- Some water lines were broken in conjunction with radiological pipe removal work at Site 5.

- The Parcel 182 fence at Site 25, Estuary Park, was under construction and should now be finished. Coast Guard grounds maintenance will have access through two gates. Environmental sampling has also been completed and the results are pending.

- The Base Reuse Advisory Group (BRAG) will sponsor an Alameda Point Open House on Saturday, 14 November from 10 a.m. to 2 p.m.. RAB members were requested to volunteer time to sit at the environmental cleanup table with Navy representatives and provide information about environmental cleanup activities.

  Mr. Palsak and Mr. Torrey volunteered, and Mr. Spafford asked other RAB members to notify him if interested in participating in this event.

- Mr. Edde also announced that removal of the first two underground storage tanks has been completed, with 25 more to be removed by the projected date of 22 December.

III. Project Teams, Round the Table

Mr. Spafford called for reports from project team leaders.

Radiological
Tony Dover reiterated the issue mentioned by Mr. Edde in regard to the spent ordnance found in the landfill areas. Mr. Dover distributed an e-mail dated November 02, 1998 which originated from George Kikugawa, EFA, West. The e-mail noted that all of the main underground piping in Building 5 has been removed, and that storm drain piping outside Building 5 is being excavated as per the plans. There is concern that one line may be contaminated, which will be determined once it is excavated. All of the radiological piping in Building 5 has been removed and will be replaced once the sampling results of the survey are disclosed. In addition, other contaminated surfaces in the building have been decontaminated. While progress is being made in Building 5, Building 400 is still to be decontaminated.

UST/Fuel Line Removal
Tom Palsak informed the board that 80 percent of the pipeline has been removed, excluding the active fuel line portion, the removal of which will begin next week. There is a maximum of about 200 feet of small pipe that remains and which may not be removed.

Mr. Edde stated that 25 tanks are scheduled to be removed, most from Area 37 just east of Seaplane Lagoon and south of Building 14. The two that have so far been removed were by Hangers 39 and 40. He also added that per the contractor, the rough spots in the roadway on the east side of Seaplane Lagoon have been repaired as of this meeting date.

Ken Kloc stated that although the storage tank removal program is separate from the IR or CERCLA program, the RAB should receive more information regarding potential leakage, which could result in contamination of the soil. Mr. Palsak agreed to check into information about the extent of vapor leakage resulting from the excavations, and will update the RAB at the next meeting.

According to Mr. Edde and Patricia McFadden, EFA West, the removal of the underground storage tanks is being regulated by Robert Weston from Alameda County and Mark Ruderman from the RWQCB. Lynn Stirewalt noted that both of these agencies were originally represented on the RAB.

Ms. McFadden stated that, according to the County, the only fuel lines that will remain are those under the runway because the process of cutting through the several feet of concrete and rebar would be cost-prohibitive. She added that the active fuel lines by Site 15 may be removed as these run under a much smaller section of the runway. Mr. Palsak noted that the remaining pipe that will be left in place is about 20,000 feet in length.

Mr. Palsak reported that not only were some underground fuel lines found to be filled with water, diesel, "bad gas," and various types of fuel, but that an asbestos coating was also discovered after the work was started. Thus, the pipes could not be salvaged and had to be relegated to the Class A dump.

Doug deHaan inquired about the findings of the core samplings taken around the fuel farm. Ms. McFadden stated that the area is identified as a problem area under the Petroleum Program.

EBS/Tiered Screening

Lynn Stirewalt mentioned to Mr. Spafford that she should be counted as having only one unexcused absence, rather than two on the attendance roster.

There was no update on the EBS/Tiered Screening topic as Ms. Stirewalt has been out of town.

Lead-Based Paint

Malcolm Mooney reported that the lead-based paint removal/abatement work has been completed for the big whites. According to the Alameda Reuse and Redevelopment Authority (ARRA), however, the Navy did not agree to turn them over in ready-for-occupancy condition. Asbestos removal/abatement has been completed and the lease is being addressed to ensure compliance with the specified terms and conditions prior to the turnover.

Mary Rose Cassa, DTSC, explained that there is no current state level Preliminary Remedial Goals based on risks posed by lead. Mr. Krival noted that the main concern is how much of the lead is organic because it as the most toxic component of lead.

OU-1 RI

Ken Kloc stated that the review of the RI document by the OU-1 RI team and the Technical Outreach Services for Communities (TOSC's) contact, Mary Masters, is close to completion. Mr. Kloc announced

that Bob Whited asked to be removed from the OU-1 RI team (not from RAB) for the next three months as he must attend to some personal business.

Site 25/Estuary Park/Community Outreach
Ms. McFadden stated that the preliminary figures for the Remedial Investigation data for Site 25/Estuary Park should be available in the next couple of weeks. Community member Patrick Lynch responded that he finds this time frame unacceptable, and added that previously, it took two and one-half years for the community to access it when that data could have been made available in its raw form. Mr. Lynch stated that the community has more resources to analyze the data than either the Navy or the regulatory agencies, and demanded that a copy be made available. Ms. McFadden stated that the process would not take 2 years, but the Navy did not currently have the data. The Navy would make the data available to the RAB and public as soon as it is received.

Mr. Spafford called for the community members to put forth their comments during the community comment period prior to the close of the meeting.

Ecology Focus
No report on this topic.

IV. ARRA/City Environmental Support

Elizabeth Johnson, ARRA, stated that a new contractor with an environmental engineering background, Peter Russell, has been hired to assist with technical review of reports. He will also advise ARRA in terms of their interests regarding potential deed restrictions or other institutional controls. Mr. Russell will not be attending RAB meetings, however he will attend all BCT meetings at which the regulators will be present. Ms. Johnson added that the Office of Economic Adjustment (OEA) funded specific studies such as the Reuse Plan and the Golf Course Feasibility Study, but that ARRA is funding Russell Resources from their own lease revenue.

V. TOSC Review of OU-1 RI

Mary Masters, EPA-funded TOSC contact, distributed an overview of her comments for the human health and ecological risk assessments for the OU-1 Remedial Investigation Report. Ms. Masters briefly explained that the main function of TOSC is to provide objective third-party technical document reviews for communities that are affected by contamination. TOSC works with RABs and with communities that do not have the resources to conduct studies on their own. Ms. Masters praised the NAS RAB members for their thoroughness and detailed comments. Her comments on the OU-1 RI are as follows:

Human Health Risk Assessment (HRA)

- Calculate the total human health risk posed by OU-1.
- Add Sites 15 & 16 residential exposure scenarios to other scenarios for these sites.
- Address the nondetection issue posed by wide ranges in Sample Quantitation Limits (SQLs) for PAHs in soil samples.
- Add current and other groundwater data to the 4 quarters of past data used to calculate potential health risks associated with groundwater exposure.
- Address Tentatively Identified Compounds (TICs).
- Collect indoor air data and/or revise model to estimate risks from volatilization of VOCs into buildings.
- Address Chemicals of Concern (COCs) for which there are no toxicity values.
- Report 1 set of HRA results. DTSC's results are a little higher than those of the EPA/Navy.
- Correct Tables D.6.6-1 and D.6.6-2, which list cancer slope factors and reference doses for non-carcinogens, respectively.

Ecological Risk Assessment (ERA)

- Provide clear justification for concluding no significant ecological risks exist at Sites 6, 7, 8 and 16.
- Address elevated lead concentrations in shallow soils in the Oakland Inner Harbor area at Site 15.
- Reconsider the 0' - 2' depth used to assess soil contamination exposures to burrowing animals.

VI. CERCLA Refresher & Update

The Comprehensive Environmental Response, Compensation, and Liability Act (CERCLA)

Ms. Cassa distributed copies of "The Road to ROD . . . and Beyond" and reviewed its diagrams to explain the CERCLA process at Alameda Point. She explained that site discovery in 1975 was followed by a preliminary assessment/site investigation that began in the early 1980s under the Navy

Assessment and Control of Installation Pollutants (NACIP) program. The NACIP program was later converted to the Installation Restoration Program (IRP) to be more consistent with CERCLA.

The Navy began work on a remedial investigation and feasibility study (RI/FS), based on the results of the NACIP studies and in response to a June 1988 remedial action order (RAO) from the State of California. The completion of work plan documents followed, based on the results of the NACIP studies, requirements of the RAO, and identification of additional sites of concern by the Navy. Treatability studies, risk assessment, and remedy selection are included in the RI/FS. Removal actions may be performed in order to reduce a threat to public health or welfare or to environment, or to expedite interim reuse by minimizing immediate risks.

In 1993, the Navy and the State of California completed a draft Federal Facility Site Remediation Agreement (FFSRA) that defined the responsibilities of the parties involved and outlined a cleanup schedule. This agreement has not been finalized. Under the draft FFSRA, a site management plan was developed which set priorities for specified tasks, identified operable units, addressed project acceleration techniques, and set forth projected dates for primary document submittal. This site management plan is contained in Appendix A of the BRAC Cleanup Plan.

The IR Program - Alameda Point/NAS Alameda

- **Preliminary Assessment & Site Inspection**
  Identification of potential disposal or contaminated sites and evaluation of these sites for potential threat to human health and the environment

  Outcome
  12 sites identified (Sites 1, 2, 3, 4, 13, 14, 15, 16, 17, 20)

- **Remedial Investigation (1988-Present) & Feasibility Study**
  Verification and characterization of the extent of contamination, definition of potential migration of pathways, quantification of risks, and evaluation of the feasibility of potential remedial measures.

  Outcome
  Additional investigation: Sites 1, 2, 3, 4, 16
  Phased RI/FS: 23 sites

- **Record of Decision (ROD)**
  Documentation and rationale for selected remedy.

- **Remedial Design, Remedial Action & Site Closure**
  Design and implementation of the required corrective measures to mitigate or eliminate confirmed problems

Remedial Investigation activities include:

- data collection and site characterization
- treatability studies
- work plan, sampling and analysis plan, health and safety plan, and community relations plan
- baseline risk assessment
- identification of possible remedial actions (OU-1 is well into this activity)

Feasibility Study activities include:

- development of alternatives (such as scoop and haul, pump and treat, or phytoremediation)
- screening of alternatives (how realistic and feasible)
- evaluation of alternatives against the nine criteria

Walter McMath asked how it was determined that phytoremediation would not be used at IR Site 4. Ms. Cassa referred to the previous meeting's minutes that included a TetraTech letter which addressed the effectiveness of phytoremediation as being dependent on the depth of the water table.

Ms. Cassa indicated that there are nine criteria by which alternatives must be evaluated. According to Anna-Marie Cook, U. S. EPA, the two threshold criteria are absolute requirements.

- **Threshold**
  Protective of public health and the environment
  Compliance with ARARs (Applicable or Relevant and Appropriate Regulations)

- **Balancing**
  Long-term effectiveness
  Reduction of volume, mobility, or toxicity through treatment
  Short-term effectiveness
  Implementability
  Cost

- **Modifying**
  State acceptance
  Community acceptance

Mr. Mooney inquired if the criteria are listed in order of importance, to which Ms. Cassa answered that they are not, and that only the first two listed under the threshold criteria must be met. Mr. Mooney noted that cost is not listed under the threshold criteria. Ardella Dailey asked Ms. Cassa to clarify whether, if the first two criteria are met, is it then necessary to meet the remaining criteria, namely, the cost factor.

Ms. Cook replied that it is preferable to take as much information into the FS as possible and evaluate more options. Those that meet the first two criteria are then evaluated by the remaining criteria. Mr. Krival stated that cost is an issue that is really always in consideration and therefore should be

included in the threshold criteria. Mr. Krival asked Ms. Cook if cost is one criteria that is considered by the Navy, the regulatory agencies and consultants, and not by the public. Ms. Cook replied that the public is a part of this decision.

Ms. Cassa pointed out that the cost criteria evaluation in an FS is for the remedy, and is a separate consideration from the costs associated with an RI. Mr. Palsak noted that cost could be associated with each of the other four balancing criteria. Ms. Cassa agreed that there is an overall cost, and that the criteria are intertwined. Ms. McFadden stated that the FS will evaluate all of the criteria on a remedy by remedy basis.

Mr. McMath inquired if there are any other failed remedies besides phytoremediation. Ms. Cassa specified that phytoremediation was not a failed remedy. Rather, the Navy elected not to pursue it as an alternative as it did not meet the criteria for reduction of volume through treatment. Mr. Edde added that it was being considered as a treatability study, not as a remedy.

Mr. McMath asked how the nine criteria determine the efficacy of certain alternatives that the Navy has committed to. Ms. Cassa answered that at this point, she does not believe that the Navy has committed to a specific technology. The chrome treatability study has been a successful technology, however it was determined that it would not work well at IR Site 4 because of the depth of groundwater.

Mr. McMath inquired how the chrome treatability study was seen as feasible in terms of the nine criteria. Ms. Cassa responded that this alternative has been very successful in removing the volume, even more so than expected, however this specific method concerns Operable Unit 2 (OU-2).

Mr. McMath asked how to obtain empirical proof that the chromium remedial procedure is actually working. Ms. Cassa replied that this was addressed in a presentation two meetings ago in which the relevant hard data was presented. Ms. Cook added that soil samples are also taken after the procedure to measure contaminant levels.

Mr. Kloc made the motion that the agenda be expedited.

Ms. Cassa stated that after the Feasibility Study is completed, there will be remedial alternatives to consider for OU-1. This is followed by the Record of Decision (ROD) which provides the rationale for the selected remedy. Ms. Dailey asked when the Record of Decision is expected, and Ms. McFadden answered that for OU-1, the completion date is December 1999. All RODs are expected to be completed by December 2001.

Following the ROD, and after a remedial technology is selected for a site, the technology must be designed, and then the action implemented. When it is determined that the site is cleaned up, the site is certified as closed. The idea is to either mitigate the identified problem or eliminate it completely.

Ms. Cassa stated that CERCLA requires community involvement outlined in a Community Relations

Plan. Restoration Advisory Boards are another vehicle for community involvement, but do not substitute for other community involvement activities.

Ms. Dailey asked if there have been any sites certified as closed at closing bases within the last ten years. Ms. Cassa replied that Parcel A at Hunter's Point has just been certified as closed. Ms. Cook added that although Hunters Point was closed in the 1970s, the clean-up process was actually begun in the early 1990s.

CEQA

The California Environmental Quality Act (CEQA) is found in the Public Resources Code Sections 21000-21177. CEQA was enacted in 1973 as a system of checks and balances for land-use development and management decisions. Environmental review is documented in an Environmental Impact Report/Environmental Impact Statement (EIR/EIS) which meets both state and federal requirements for evaluating the impacts of construction or similar activities on the environment. If an EIR is not required, then a negative declaration is issued which states that there would be no significant environmental impacts. The intent behind CEQA is that citizens should contribute to the preservation and enhancement of the environment.

As DTSC is the lead agency for clean-up of this site, Ms. Cassa stated that she is required to follow CEQA guidelines for remedial action plans, and removal actions. Underground storage tanks, fuel line removal and petroleum contamination is under the purview of the RWQCB, who follows a CEQA-equivalent process.

Ms. Johnson inquired if the RWQCB provides an opportunity for public comment. Ms. Cassa replied that they hold public hearings. Ms. Johnson asked if the Board literally uses the words "a potential environmental impact has been identified" when RWQCB notices a hearing, and how can such usage be justified given that they have not performed the steps that are specified in CEQA. Lynn Suer, U.S. EPA, stated that the Board develops a functional-equivalent document, on the back of which is attached a checklist that addresses specific questions regarding environmental impact.

CEQA Process

Ms. Cassa reviewed the steps in CEQA process:

1. Is the proposed project subject to CEQA

    - notice of exemption
    - initial study

2. Will the project have a significant effect on the environment

    - Negative Declaration (approve removal action or remedial action plan)
    - Environmental Impact Report (if there will be significant impacts)
    -

3. Approve or deny project

- notice of determination

Property Transfer
The Navy may transfer property that is not contaminated. If the property is contaminated, the Navy may not conduct transfer until a remedy is in place that is deemed to be effective. Otherwise, the Navy must seek permission from the governor to transfer contaminated property. This has actually occurred only once in the State of California.

Environmental Baseline Survey
The Environmental Baseline Survey (EBS) is the foundation for property transfer and is similar to the Preliminary Assessment/Site Investigation. The Navy conducted Phase I after the base closure was announced. They identified "clean" parcels that were eligible for immediate transfer. Phase II was then implemented, which involved a detailed survey of more than 200 parcels. Tiered screening originated in this phase, wherein lightweight samples were taken from parcels and then looked at in more depth as necessary.

Parcels are classified by category according to the extent of contamination, so that the condition of property is documented for leasing and transfer.

At Alameda Point, the state determined that a Preliminary Endangerment Assessment had not been completed and as a result, an agreement was made wherein the Environmental Baseline Survey would meet the requirements for a Preliminary Endangerment Assessment. The result is the identification of property that needs further investigation.

RCRA Facility Investigation
The Resource Conservation and Recovery Act (RCRA) is concerned with the handling of, as opposed to the disposal of hazardous waste. At Alameda Point, 25 sites were recognized as needing a closer look, and more than 100 hazardous waste generation and storage sites have been identified. Warren Yip, EFA West, is overseeing the effort to close the book on all of these hazardous waste generation and storage sites in order to complete the requirements for closing the permits.

Ms. Stirewalt inquired if CEQA is a state regulation, as opposed to CERCLA, which is a federal regulation. Ms. Cassa replied that CEQA is an add-on to CERCLA and was created to ensure that projects that are approved by the state do not have a negative impact on the environment. The transfer of contaminated property by the Navy is a property transfer issue that is governed by CERCLA and is separate from CEQA. A deed restriction is a remedy that is documented by a ROD.

Mr. McMath asked how CERCLA addresses a community member's serious doubts as to the efficacy of certain remedies. Ms. Cassa replied that if the member feels that it won't work, then there is an opportunity to comment during the Feasibility Study phase and the Record of Decision phase of the CERCLA process. If it is felt that evidence exists that a remedy is not working after it has been

implemented, then there are mechanisms to re-open the Record of Decision. In addition, there is a review of the remedy and its resultant effects in five years.

Mr. McMath expressed that he had serious reservations about the dechroming process. Ms. Cassa pointed out that it is a part of the Remedial Investigation phase for OU-2, as opposed to OU-1. When OU-2 is discussed in the Remedial Investigation report, then there will be an opportunity to comment on the dechroming process. OU-2, however, will be addressed after OU-3 (in late 1999).

Ms. McFadden added that a Feasibility Study group will likely be formed and invited Mr. McMath's participation.

Mr. Krival expressed that the presentation was all too brief, especially in terms of the large scope of both the CERCLA and the CEQA processes. He stated that the allotted twenty minutes was insufficient to adequately expound on the regulatory process.

Mr. Krival continued that there will not likely be a Notice of Exemption as is specified in CEQA, unless there is eminent domain. Ms. Cassa replied that she did, in fact, follow the CEQA process for the Radiological Removal Action Plan. In the implementation of this plan, there was no Notice of Exemption and DTSC went through the initial study and published a Negative Declaration. Mr. Krival specified that he was not intending to criticize her actions, however according to his experience in working for the state, ninety percent of the time the normal procedure did not go through an exemption step. Ms. Cassa replied that ninety-nine percent of the projects either go through the Negative Declaration or EIR pathways..

Ms. Dailey asked where Alameda Point was in terms of the EIR/EIS process. Ms. Cassa replied that there is a EIR/EIS process for the reuse of the base, which is separate from the CERCLA process. Mr. Edde answered that the draft for the EIR/EIS will be released for public review in December. The final will be released in April of 1999 and the Record of Decision is expected to be signed in June of 1999.

Ms. Cassa distributed copies of information from a recent newsletter published by the Agency for Toxic Substances and Disease Registry listing some environmental and public health Internet resources.

VIII. Community and RAB Comment Period

Mr. Spafford called for comments from RAB and the community.

Bill Smith, Alameda resident and Army officer, complimented the Navy's lead clean-up efforts. He gave a brief update on the Oakland Army Base, and requested RAB assistance in addressing and commenting on the EPA's proposed TSCA 403 rule regarding lead levels. Mr. Smith mentioned that one of the threshold criteria that Ms. Cassa addressed was to protect human health and environment. He stated that

EPA did not use this threshold criteria in drafting the TSCA 403 rule, but rather moved the criteria from the threshold category into the balancing category. He quoted part of the rule from the Federal Register, regarding assignment of a dollar value to the loss of I.Q. in children. The proposed cleanup standard, set at 2000 ppm, would result in significant I.Q. loss in 10 - 30 percent of children. Mr. Smith emphasized that these conclusions are not speculative, like many of the uncertainty factors in the risk assessments, and are backed up by epidemiological evidence.

Mr. Smith encouraged those interested to endorse some comments put together by Arc Ecology, or to draft a letter stating that the federal standards should at least be as stringent as the State of California standards. He added that the DTSC has not taken a position on this issue and there is pressure on them to loosen their standards to match the federal standards.

Mr. Spafford inquired if anyone was interested in drafting the letter. Mr. Kloc clarified that the TSCA branch of the EPA is responsible for this rule, and mentioned that there are two upcoming meetings on the TSCA 403 rule. The EPA will be sponsoring a regional public hearing on the TSCA 403 rule in December, and he also announced that there will be a meeting the following day at San Francisco State University held by Arc Ecology, the Center for Public Environmental Oversight and the Urban Habitat Program. Mr. Kloc distributed a flyer regarding the public hearing and the meeting.

Mr. Kloc then made a motion to support Mr. Smith's suggestion to endorse Arc Ecology's comments or to draft a letter. Ms. Dailey and Mr. Spafford seconded the motion. Mr. Mooney asserted that he is uncertain as to whether the RAB should respond to Mr. Smith's petition so quickly because it is a nationwide issue and not one that concerns Alameda Point specifically.

Mr. Kloc noted that the comment period is set to end on 30 November 1998.

Ms. Cassa pointed out the RAB members could respond as individuals and that it doesn't have to be a collective response from the RAB.

Mr. Kloc suggested that interested individuals should contact Arc Ecology to inquire about the TSCA 403 rule. He also suggested that members could contact the Lead Hotline and express their interest in attending the regional hearing. Mr. Kloc noted that it is a national issue that will affect children and has a major impact on people of color and residents of low-income households.

In response to Mr. Mooney's comment, Ms. Dailey asked why the TSCA 403 rule would not concern Alameda Point. Mr. Mooney replied that the business of this RAB is Alameda Point only, not the nation and that our lead work was completed. Mr. Smith made a motion for the RAB to authorize the formation of a committee to recommend whether or not to respond to the proposed rule by either a) endorsing Arc Ecology's comments; or b) proposing that the federal standards should at least be as stringent as the standards of the State of California.

Bert Morgan objected to the RAB endorsing another organization's position, and suggested instead that the RAB itself should propose a change in the federal standards. Ms. Dailey agreed with this

position. Ms. Stirewalt suggested that the committee summarize the content of the proposed rule for the RAB. The motion passed; Ms. Dailey, Mr. Mooney, Mr. Smith, Mr. Dover and Mr. Kloc volunteered to be a part of the new committee, with Mr. Kloc acting as chairman.

Mr. Spafford announced that the meeting was adjourned at 9:40 p.m. At this point, Mr. Lynch announced that he had some comments that he would like to express. He responded in particular to Ms. McFadden's earlier comment in regard to a time frame of two years for data to be disclosed to the public. He noted that the RI data is stale since it is now three years old. Mr. Lynch commented that the remediation schedule for OU-1 that was updated 20 months ago has slipped back 16 months. Further, in that time frame, seven sites in OU-1 were delayed when they were moved to OU-2.

Mr. Lynch stated that these investigations began 20 years ago, during which time an entire generation of West End residents has been needlessly exposed to contaminants such as lead, and that it is not coincidental that the lowest performing elementary school is Woodstock, which is situated in a contaminated environment adjacent to the base. Mr. Lynch added that the Navy has delayed the transfer of property which he finds inexcusable. After Mr. Lynch's comment, Mr. Spafford adjourned the meeting.

The next Restoration Advisory Board Meeting will be held at 7:00 p.m. on Tuesday, December 01 in Building 1, 1st floor, Suite #140, Community Conference Room, Alameda Point.

ATTACHMENT A

NAVAL AIR STATION ALAMEDA
RESTORATION ADVISORY BOARD MEETING AGENDA

November 3, 1998

RESTORATION ADVISORY BOARD

NAVAL AIR STATION, ALAMEDA

AGENDA

NOVEMBER 3, 19987:00 PM

ALAMEDA POINT – BUILDING 1 – SUITE 140

COMMUNITY CONFERENCE ROOM

(FROM PARKING LOT ON W MIDWAY AVE, ENTER THROUGH MIDDLE WING)

TIME	SUBJECT	PRESENTER
7:00 - 7:05	Approval of Minutes	John Spafford
7:05 - 7:15	Co-Chair Announcements	Co-Chairs
7:15 - 7:45	Project Teams, Round the Table	Team Leaders
7:45 - 7:50	ARRA/City Environmental Support	Elizabeth Johnson
7:50 - 8:20	TOSC Review of OU-1 RI	Mary Masters
8:20 - 8:40	CERCLA Refresher & Update	Mary Rose Cassa
8:40 - 8:50	BCT Activities	Mary Rose Cassa
8:50 - 9:00	Community & RAB Comment Period	Community & RAB

ATTACHMENT B

SIGN-IN SHEETS

ALAMEDA POINT
RESTORATION ADVISORY BOARD
Monthly Attendance Roster for 1998

Date: Nov. 3, 1998

Please initial by your name

	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEPT	OCT	NOV	DEC
COMMUNITY MEMBERS												
Robert E. Berges						P	A	P	A	P		
Horst Breuer							P	P	A	P		
Saul Bloom/Ken Kloc	P	P	A	P	P	P	P	P	P	P	here KK.	
Ardella Dailey	P	P	A*	A	P	P	A	A*	P	A	P	
Douglas deHaan	P	A	P	P	P	P	A	P	P	A		
Tony Dover	P	P	A	P	A	A	P	A	P	P		
Lauren Helfand	P	P	A	P	P	P	A	P	A	P		
Karin King	A	P	A	A	A	A	P	A	A	A		
Richard King	A	A	A	A	A	A	A	A	A	A		
Stephen Krival			P	P	A	P	A	A	P	A	SK	
James D. Leach					P	P	P	A	A	P		

* denotes excused absence

Prepared 9/98

Name	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEPT	OCT	NOV	DEC
Jo Lynn Lee	P	P	P	P	P	A	P	P	P	P		
Malcolm Mooney	P	P	P	P	P	P	P	P	A	P		
Walter D. McMath			P	P	P	P	P	P	P	P		
Bert Morgan	P	P	P	P	P	P	P	P	P	P	here	
Ken O' Donoghue	P	P	P	A	P	P	P	P	P	P		
Tom Palsak	P	P	P	P	P	P	P	P	P	A*		
Kurt Peterson					P	P	A*	A	P	P	A*	
Michael Polenz					P	P	A	P	P	P		
John Spafford	P	P	P	P	P	P	P	A*	P	P		
Lyn Stirewalt	P	P	P	A	P	P	P	A	A	A*		
Michael Torrey	P	P	P	P	P	P	P	P	P	P		
Dr. Patrick Walters	P	P	A*	P	P	A*	P	P	A*	P	A*	
Robert L. Whited						P	P	P	P	A		
Daniel P. Zerga						P	P	P	P	A		

	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEPT	OCT	NOV	DEC
REGULATORY & OTHER AGENCIES												
Ravi Arulanantham												
Claire Best												
Mary Rose Cassa											here	
Anna-Marie Cook											ccmc	
David Cooper												
Jim Haas												
Elizabeth G. Johnson											EGJ	
Michael Martin												
Steve Schwarzback												
Lynn Suer											LS	
Laurie Sullivan												
Sandre R. Swanson												
Joyce Whiten												
Dave Wilson												
Sylvia Sudan											X	

	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEPT	OCT	NOV	DEC
U.S. NAVY												
Steve Edde											here	
Lisa Fasano											here	
George Kikugawa												
Patricia McFadden											here	
CDR Scott Smith												
Dennis Wong												
Warren Yip												
Mary Masters	Technical Outreach Services for Communities (TOSC)											
TETRA TECH												
Marie Rainwater												
GPI												
Barry Robbins												

PUBLIC/GUESTS	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEPT	OCT	NOV	DEC
Name		Address							Phone			
Patrick Lynch (sp?)												
Bill Smith BR												

ATTACHMENT C

NAVAL AIR STATION ALAMEDA
RESTORATION ADVISORY BOARD
MEETING HANDOUT MATERIALS

Alameda Point Monthly Summary of Activity 11/03/98
E-mail message from George Kikugawa, EFA West, 11/02/98
Comments on Human Health and Ecological Risk Assessments for OU-1 RI Report by Mary Masters, TOSC 11/01/98
The Road to Rod ... and Beyond
Environmental and Public Health Internet Resources
Meeting Announcement, EPA's Lead TSCA 403 Rulemaking

Alameda Point
MONTHLY SUMMARY SHEET
11/03/98

Item	Topic	Disposition
1	Asbestos Removal	10/98 - All asbestos abatement work has been completed in the 30 remaining industrial buildings.
2	Site 1 Ordinance	10/8/98 - SSPORTS personnel conducting the radiological survey
		found a deteriorated 20 mm aircraft gun round at site 1. SSPORTS
		surveyed the area and found additional rounds and notified the NTO
		Staff. NTO staff surveyed the area the next day and contacted the
		Travis Air Force Ordinance personnel to evaluate what was found.
		Some rounds are being analyzed for residual explosive material.
		SSPORTS Ordinance personnel have completed a comprehensive
		survey of site 1. All rounds have been removed from the site.
		The Navy will allow radiological survey work to continue once the
		final clearance report is received-expected approximately 2 weeks.
		The radiological survey work is being conducted at site 2 during the
		ordinance sweep of site 1.
3	Water line breaks	10/29 & 11/2 - Two water lines were accidentally broken by the
		contractor conducting the radiological pipe removal work at site 5.
		The first, a 12" fire suppression line, was broken when a sheet
		pile retaining wall was driven into a trench. The pipe was shut off
		and the accumulated water tested. No radiological contamination
		was detected in the water. The pipe was repaired in conjunction
		with EBMUD. The second line, a 1" water supply line, was broken
		when the contractor was digging. The water was shut off and the
		line repaired. Neither line was indicated on working drawings.
		Original site drawings have been reviewed to prevent further
		accidents.

Dover, Tony

From: gkikugawa
To: <tdover@fugro.com>
Cc: "Patricia A McFadden" <pamcfadden@efawest.navfac.navy.mil>; "Steven L Edde" <sledde@efawest.navfac.navy.mil>
Subject: RAD UPDATE
Date: Monday, November 02, 1998 6:21PM

Tony,
I hope this isn't too detailed.
george

All of the main underground piping in building 5 has been removed. Very little contaminated soil has been found inside the building. Cleanup of laterals may be required before replacing pipes. The Navy will present results of radiological piping test and computer analysis for regulatory review. These results will be used to determine the need and extent for additional cleaning of the laterals.

The external storm drain piping is being excavated outside building 5 per the work plans.
There is a concern with contaminated line that ties into the second manhole outside the building. This line was thought to be abandoned. A previous survey could only extend 60 feet from the manhole. The line needs to be followed to its source, which may be inside the building, and any connecting laterals evaluated.

All exposed radiological piping in building 5 has been removed. Awaiting results of sampling and regulator survey before replacing piping.
Surfaces in building 5 are being decontaminated and additional areas are being surveyed.
Bldg. 400 still needs to be decontaminated.

Most of Site 1 has been surveyed for radiological anomalies, except for areas around and including the pistol range. Due to possible ordnance in the pistol range, a sweep for UXO (Unexploded Ordnance) has been conducted. SSPORTS will continue radiation surveys in Site 2 for the next couple of weeks and the survey of the rest of Site 1 will be completed after the UXO sweep results.

STANFORD UNIVERSITY

Western Region Hazardous Substance Research Center

Department of Civil and Environmental Engineering
Terman Engineering Center
Stanford, California 94305-4020

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For Communities

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ALAMEDA POINT
ALAMEDA, CALIFORNIA
OU-1 REMEDIAL INVESTIGATION REPORT, REVISED DRAFT 9/3/98
COMMENTS ON HUMAN HEALTH AND ECOLOGICAL RISK ASSESSMENTS

Prepared by Mary H. Masters
Technical Outreach Services for Communities (TOSC)

November 1, 1998

Human Health Risk Assessment (HRA)

1. In order to provide the City of Alameda and the community with data necessary to make informed land use and residence location decisions, the Navy should calculate the total human health risk posed by OU-1. This would require calculating the risks from exposure to the fill material that is currently designated as "background," and adding these risk results to those associated with "site-related" risks. For the purposes of remedial action decisions, site-related risks could be sub-totaled and evaluated with respect to potential remediation. Future land use decisions, however, should be based on the total health risks posed by OU-1 , especially given that residential use is currently planned.

   EPA Risk Assessment Guidance for Superfund, Volume 1 (RAGS,) page 5-19, section 5.7.3, states: "In some cases, however, background concentrations may present a significant risk, and, while cleanup may or may not eliminate this risk, the background risk may be an important site characteristic to those exposed. The RPM will always have the option to consider the risk posed by naturally occurring background chemicals separately." The limited amount of investigation data used in the risk assessment, and the fact that the site is built on fill material that contains a variety of chemicals with potential adverse health effects, suggests that a prudent risk management strategy is to evaluate total site risks.

2. The health risk results for the residential exposure scenario at sites 15 and 16 should be included in Vol. IV sections D.7.4 and D.7.5, respectively, with the other exposure scenario discussions for these sites. As long as the potential for residential use exists for these sites, that scenario should be evaluated with equal emphasis. Risk management decisions are intended to take land use planning into account when evaluating remediation alternatives.

3. The range in Sample Quantitation Limits (SQLs) for PAHs in soil samples is often quite wide. For example, in Table D.4-2, the range for benzo(a)pyrene and several others is 140 µg/kg – 14,000 µg/kg; the residential soil Preliminary Remediation Goal (PRG) for benzo(a)pyrene is 56 µg/kg. When the SQL of a chemical is greater than corresponding standards, criteria, or concentrations derived from toxicity reference values, the chemical may be present at concentrations greater than these reference values; undetected risks may occur as a result. Similar problems exist in Table D.4-2 for Benzo(a) anthracene, Benzo(b)fluoranthene,

Benzo(k)fluoranthene, Chrysene, Dibenzo(a,h)anthracene, and Indeno(1,2,3-c,d)pyrene. In Table D.4-1, the SQLs for Benzo(a)pyrene and Indeno(1,2,3-c,d)pyrene are problematic. Additional soil sampling for PAHs may be warranted to more accurately assess the presence of, and resultant risks associated with, these compounds.

4. Four quarters of groundwater data, and particularly data that are not current, are insufficient to determine health risks associated with a site. All groundwater data, including current monitoring results, or 12 quarters at a minimum including current results, should be incorporated into the HRA.

5. To be complete, the HRA should include a discussion of Tentatively Identified Compounds (TICs). EPA RAGS, page 5-18, section 5.6.1, states that if TICs are omitted from the quantitative HRA, then the manager should "document reasons for excluding TICs in the risk assessment report." This recommendation goes to the point of estimating total risks to receptors.

6. A very detailed and thorough review of the modified Johnson and Ettinger model to estimate volatilization of VOCs into building interiors was provided in the comments on the first draft HRA, submitted by RRM, Inc. TOSC supports the RRM, Inc. arguments and conclusion that health risks due to indoor air exposures may be underestimated by incorporating a dilution attenuation factor of five orders of magnitude in the risk calculations. The dilution factor was based on one study. There are several variables to consider in modelling indoor air concentrations, such as floor construction, seasonal indoor vs. outdoor air temperatures, air infiltration rates, and groundwater levels. Given that residential use of OU-1 sites is planned, collection of indoor air data is recommended; alternatively, a revised model should be used.

7. Several chemicals identified as Chemicals of Concern (COCs) are eliminated from risk calculations associated with certain exposure routes due to lack of toxicity values. (See Table D.6.6-2.) Use of surrogate toxicity values would provide a more accurate estimate of potential health risks associated with chemicals detected at frequencies and concentrations of concern to human health. When surrogate toxicity values are not incorporated in the HRA, EPA RAGS (page 7-16, section 7.5.2) states: "If information is not available from the Environmental Criteria and Assessment Office (for guidance in evaluating chemicals for which no toxicity values are available,) the assessor should describe the effects of the chemical qualitatively and discuss the implications of the absence of the chemical from the risk estimate in the uncertainty section of the risk assessment." Section D.8 "Uncertainty" in the HRA does not discuss the implications of eliminating each of several chemicals from the risk calculations, nor does it address the potential cumulative impacts on the HRA results.

8. One HRA set of results, rather than two, should be reported. Several HRA reviewers have stated this position, including EPA Region 9. It is misleading and possibly confusing to the community to have a "Navy/EPA HQ" result that is disputed by the local EPA regional office, and a separate DTSC result. TOSC recommends reporting the DTSC results only. The Navy could incorporate a discussion of its concerns with DTSC's methods, in comparison to its interpretation of EPA HQ guidance, in an attachment to Vol. IV.

9. Tables D.6.6-1 and D.6.6-2 appear to contain errors, when compared to the Region 9 Preliminary Remediation Goals (PRGs) 1998. Please correct the CSF_i factor for arsenic, and note that values now exist for the reported ND (Not Determined) values for several SVOCs in Table D.6.6-1. Also, note corrections needed for RfD_i values for barium, beryllium, cadmium, cobalt, Aroclor-1254, all pesticides except for DDD and DDE, and for the RfD_c for manganese, aldrin and dieldrin inTable D.6.6-2 . Relevant text pages and calculations should also be corrected.

10. Vol. I, page 5.8, section 5.1.3.2: Please remove the word "current" from the first sentence in this section.

11. Vol. IV, page 68, section D.6.13: The word "Chromium" probably should be "Chlorobenzene."

12. Vol. IV, title page: Was Alameda Point formerly the "Naval Sir Station?"

Ecological Risk Assessment (ERA)

1. For sites 6,7,8 and 16, the ERA concludes that future ecological habitat potential is limited due to the availability of preferred habitat at other locations at Alameda Point. In addition, site chemicals were compared to ecological reference values in tables at the end of each site chapter, and it was determined that ecological COCs do not exist at these sites. Therefore, ecological risks were determined to be insignificant. It would be very helpful to the reader to have a table within the text discussion of each site's ecological risk that lists which chemicals exceeded specific ecological reference values, and a discussion of the implications of those exceedances. It may be true that ecological receptors will prefer to inhabit other areas of Alameda Point, but some will surely adapt to OU-1 areas under future use scenarios. A clearer explanation of potential ecological risks associated with future land use scenarios would better serve the risk managers and community.

2. For site 15, lead is identified as an ecological COC and the Hazard Quotient 2 (HQ2) associated with lead exposure exceeds 1.0 for both the California ground squirrel and the red-tailed hawk. The HQ2 also exceeds 1.0 for the ground squirrel exposed to copper, nickel, selenium, and zinc. It appears that lead concentrations in shallow soils along the Oakland Inner Harbor are posing the most adverse potential health threats to ecological receptors. Given that lead concentrations in this area also exceed human health standards, remediation should be considered.

3. It appears that reviewers and the Navy agree that California ground squirrels are known to burrow from three to five feet below ground surface. Will future uses of OU-1 sites prevent ground squirrel habitation? If not, the ERA for burrowing animals should be revised to include soil contamination exposures to at least five feet below ground surface.

Alameda Point Restoration Advisory Board Meeting

TECHNICAL OUTREACH
SERVICES FOR COMMUNITIES

PRESENTATION

November 3, 1998

Mary Masters
Western Region Hazardous
Substance Research Center
Stanford University
Oregon State University

email [illegible]
Phone [illegible]

Alameda Point Restoration Advisory Board Meeting

- Review of Human Health Risk Assessment
- Review of Ecological Risk Assessment
- Discussion

Human Health Risk Assessment (HRA)

- Calculate the total human health risk posed by OU-1.
- Add Sites 15 and 16 residential exposure scenarios to other scenarios for these sites.
- Address the nondetection issue posed by wide ranges in Sample Quantitation Limits (SQLs) for PAHs in soil samples.
- Add current and other groundwater data to the 4 quarters of past data used to calculate potential health risks associated with groundwater exposure.

Human Health Risk Assessment (HRA)

- Address Tentatively Identified Compounds (TICs).
- Collect indoor air data and/or revise model to estimate risks from volatilization of VOCs into buildings.
- Address Chemicals of Concern (COCs) for which there are no toxicity values.
- Report 1 set of HRA results.
- Correct Tables D.6.6-1 and D.6.6-2, which list cancer slope factors and reference doses for noncarcinogens, respectively.

Ecological Risk Assessment (ERA)

- Provide clear justification for concluding no significant ecological risks exist at Sites 6, 7, 8 and 16.
- Address elevated lead concentrations in shallow soils in the Oakland Inner Harbor area at Site 15.
- Reconsider the 0' - 2' depth used to assess soil contamination exposures to burrowing animals.

Alameda Point Restoration Advisory Board Meeting

- Review of Human Health Risk Assessment
- Review of Ecological Risk Assessment
- Discussion

OU-1
Residential Risk And
Hazard Index Summary

Site	Medium	Carcinogenic Risk	Non-Carcinogenic Risk
6	Soil	9.4 E-5	0.26
	Groundwater	2.5 E-5	0.17
	TOTAL	1.1 E-4	0.46
7	Soil	1.6 E-3	1.2
	Groundwater	1.1 E-3	5.7
	TOTAL	2.7 E-3	6.8
8	Soil	1.7 E-4	0.10
	Groundwater	3.2 E-5	0.46
	TOTAL	2.0 E-4	0.56
16	Soil	3.1 E-4	0.18
	Groundwater		
	TOTAL	3.1 E-4	0.18
18	Soil	4.1 E-5	0.25
	Groundwater	4.0 E-5	0.34
	TOTAL	4.6 E-5	0.59

Note: CERC methodology for Reasonable Maximum Exposure (RME)

WESTERN REGION HAZARDOUS SUBSTANCE RESEARCH CENTER
TECHNICAL OUTREACH SERVICES FOR COMMUNITIES

STANFORD UNIVERSITY
OREGON STATE UNIVERSITY

The Road to ROD . . . and Beyond

The Comprehensive Environmental Response, Compensation, and Liability Act (CERCLA) was signed into law in 1980 to provide for liability, compensation, cleanup, and emergency response for hazardous substances released into the environment and the cleanup of inactive hazardous waste disposal sites. CERCLA was amended in 1986 by the Superfund Amendments and Reauthorization Act (SARA). Any reference to CERCLA should be interpreted as meaning "CERCLA as amended by SARA." CERCLA regulations are contained in the National Oil and Hazardous Substances Pollution Contingency Plan (NCP), Title 40, part 300 of the Code of Federal Regulations.

State law governing hazardous waste is contained in the California Health and Safety Code, Division 20; the regulations are contained in Title 22 of the California Code of Regulations. In general, the state and federal programs are similar, but they differ in detail. The same process is used, regardless of whether funding comes from the responsible party (the Navy) or Superfund.

The Remedial Investigation is but one step along the road to the Record of Decision (ROD) and the eventual cleanup of a hazardous waste site. The process at Alameda Point is summarized below:

Site Discovery

In 1975, the Department of Defense initiated a program to identify and investigate potential hazardous waste sites at military installations. The program was expanded into the Navy Assessment and Control of Installation Pollutants (NACIP) program in 1980.

Preliminary Assessment/Site Investigation

In 1982, the Navy began evaluating NAS Alameda under the (NACIP) program. The specific steps that comprised the NACIP program were similar to those used under CERCLA, but with different names. In 1988, the Navy converted its NACIP program into the Installation Restoration Program (IRP) to be more consistent with CERCLA. This change included adopting CERCLA terminology.

Remedial Investigation/Feasibility Study

The Navy began working on a remedial investigation and feasibility study based on the results of the NACIP studies and in response to a remedial action order from the State of California in June 1988. The RAO required that a remedial investigation be conducted at NAS Alameda for selected sites of concern. Between 1988 and 1990, the Navy completed work plan documents, based on the results of the earlier NACIP studies, requirements of the RAO, and subsequent identification of additional sites of concern by the Navy. Included in the RI/FS are treatability studies, risk assessment, and remedy selection. Removal actions may be performed in order to reduce a threat to public health or welfare or the environment, or to expedite interim reuse by minimizing immediate risks.

In 1993, the Navy and the State of California completed a draft Federal Facility Site Remediation Agreement that defined the responsibilities of the parties involved and outlined a cleanup schedule. The FFSRA requires that investigations and remedy selections be performed in accordance with applicable State and Federal law and be consistent, to the maximum extent possible, with the priorities, guidelines, criteria, and regulations in the NCP. This agreement has not been finalized.

Under the draft FFSRA, a site management plan was developed which set priorities for specified tasks, identified operable units, addressed project acceleration techniques, and set forth projected dates for submittal of primary documents required to complete all necessary site investigations and remedial actions at NAS Alameda. The site management plan is basically the schedule of milestones or completion dates and is contained in Appendix A of the BRAC Cleanup Plan.

IR Program - Alameda Point/NAS Alameda

NACIP Process	Duration	CERCLA Process	Description	Outcome
Initial Assessment Study Confirmation Study Verification Step	1982-1983 1983-1985	Preliminary Assessment Site Inspection	Identification of potential disposal or contaminated sites and evaluation of these sites for potential threat to human health and the environment	12 sites (1, 2, 3, 4, 13, 14, 15, 16, 17, 20)
Confirmation Study Characterization Feasibility Study	1983-1985	Remedial Investigation (1988-present) Feasibility Study	Verification and characterization of the extent of contamination, definition of potential migration pathways, quantification of risks, and evaluation of the feasibility of potential remedial measures	Additional investigation: Sites 1, 2, 3, 4, 16; Phased RI/FS: 23 sites
Project Documentation		Record of Decision	Documentation and rationale for selected remedy	
Remedial Measures		Remedial Design Remedial Action Site Closure	Design and implementation of the required corrective measures to mitigate or eliminate confirmed problems	

In order to expedite the IRP process, the project team consolidated the 23 IRP sites into four Operable Units. In January 1997, the BCT reorganized the OUs according to four factors: (1) contaminant type, extent of contamination, and media (soil, groundwater, etc.); (2) remediation management; (3) reuse potential; and (4) geographic location. Later in 1997, Site 24 (Piers 1 and 2 sediments) was identified and Site 2 was moved from OU3 to OU2. In 1998, Site 25 (Estuary Park) was identified, and the Operable Units were further reorganized, based on proximity, contaminant type, and reuse potential. The current status is summarized below:

OU Number	Media	IRP Sites	Comments
1	soil and groundwater	6, 7, 8, 15, 16	relatively small, uncomplicated sites with low levels of contamination that may be closed with minimal effort and cost
2	soil and groundwater; landfill	2, 3, 4, 5, 10, 11, 12, 13, 19, 21, 22, 23	landfill (Site 2) geographically isolated from other IRP sites; chlorinated solvents
3	landfill; soil and groundwater	1 and 14	landfill (Site 1) geographically isolated from other IRP sites; chlorinated solvents (Site 14); sites are near one another and are both located in footprint of future golf course.
4	surface water and subaqueous sediments	17, 18, 20, 24	aquatic sites and installation storm sewer system which discharged to Seaplane Lagoon and Oakland Inner Harbor; also includes West Beach Landfill wetlands, runway wetlands, Breakwater Beach area, aquatic area off Western Bayside
TBD	soil	25	PAHs in soil; unknown source

ROD

The Navy will prepare a Record of Decision/Remedial Action Plan for each OU. The Proposed Plan/Draft RAP recommends a specific set of actions to address contamination in the OU. California law requires a 30-day public comment period during the Draft RAP review process. At least one public meeting is also held during the public review period to receive comments. The Navy must consider these public comments when deciding on the final remediation plan (ROD/Final RAP) for the OU.

Community Involvement

The Navy is required to prepare and implement a Community Relations Plan, a road map for community involvement and outreach activities throughout the cleanup process. The RAB is a key component of the Navy's community outreach effort. The RAB provides for community involvement earlier and more frequently than required by cleanup laws by providing a forum through which local community members, the military, and regulatory agencies can work together in an atmosphere that encourages discussion and exchange of information regarding the Navy's environmental activities. The RAB is not a replacement for other community relations

activities required by law, regulation, or policy; rather, it is intended to supplement existing community relations requirements.

California Environmental Quality Act (CEQA) [*Public Resources Code Sections 21000-21177*]

The California Environmental Quality Ace (CEQA) was enacted in 1973 as a system of checks and balances for land-use development and management decisions in California. Environmental review is documented in an Environmental Impact Report (EIR), which records the scope of the applicant's proposal and analyzes all its known environmental effects. In most cases, California's environmental review extends beyond federal statutes established under the National Environmental Policy Act (NEPA). The CEQA process involves a number of steps which produce an environmental document supporting the lead agency's decisions.

Steps in CEQA Process

1. Is the proposed project subject to CEQA?
   - --> Notice of Exemption
   - --> Initial Study
2. Will the project have a significant effect on the environment?
   - --> Negative Declaration
   - --> Environmental Impact Report
3. Approve or deny project
   - --> Notice of Determination

DTSC must complete the CEQA process for removal actions and RAP/RODs. Negative Declarations were prepared for the removal actions at Sites 15 and 16 and for the radiological removal action. RWQCB requirements are considered "CEQA-equivalent;" therefore, negative declaration/EIR was not prepared for the fuel line removal.

CEQA policy states, "Every citizen has a responsibility to contribute to the preservation and enhancement of the environment;" therefore, it is important for the affected community to participate in the CEQA process.

Beyond the ROD

Following the ROD, the Navy will develop the Remedial Design, implement the Remedial Action, and conduct ongoing Operation and Maintenance until the remedial goals are achieved.

Transfer

The Navy may transfer clean property, but may not transfer contaminated property until the remedy is in place and demonstrated to be effective, unless special permission is obtained from the Governor. The BCT is working to identify transferrable parcels and to identify cleanup alternatives for contaminated parcels.

Other Environmental Programs at Alameda Point/NAS Alameda

Environmental Baseline Survey (EBS)

The Environmental Baseline Survey is an inventory of all hazardous waste practices associated with property at a closing military installations. It allows for classification of environmental condition of property prior to transfer. The Community Environmental Response Facilitation Act of 1992 requires closing military installations to identify clean or uncontaminated property for transfer to the community for reuse. Phase I of the EBS, completed in October 1994, identified the environmental condition of property for all 208 parcels at NAS Alameda. Six parcels (39, 60, 63, 93, 101, and 194) were classified as Category 1 (CERFA properties). The final phase of the EBS process (also called tiered screening at Alameda Point) includes the referral, recommendation, and recategorization of parcels based on earlier results of the EBS investigations. The tiered screening addresses human health risk as described in DTSC and USEPA guidance documents (Preliminary Endangerment Assessment Guidance Manual, DTSC 1994; Risk Assessment Guidance for Superfund, USEPA 1990).

RCRA Facility Investigation (RFI)

A RCRA Facility Assessment conducted in 1991 identified 142 solid waste management units at NAS Alameda that were not represented in existing RCRA permit applications. Subsequent to the RFA, NAS Alameda acquired a hazardous waste facility permit, including a RCRA Part B application approval, for seven hazardous waste facilities. The hazardous waste facility permit included a Corrective Action Schedule of Compliance which identified 25 RCRA sites for which a RCRA Facility Investigation must be conducted. To accelerate cleanup and facilitate property transfer, the BCT developed a strategy to fulfill the substantial requirements of the RFI at selected RCRA sites by conducting the necessary sampling and analysis under the Phase II EBS.

Further Information

- BRAC Cleanup Plan (March, 1997 - under revision)
- California Environmental Quality Act Statutes and Guidelines (Governor's Office of Planning and Research)
- California Code of Regulations: Title 22
- California Hazardous Waste Control Law: California Health and Safety Code, Division 20
- Comprehensive Environmental Response, Compensation, and Liability Act (CERCLA; 1980)
- National Oil and Hazardous Substances Pollution Contingency Plan (NCP), Title 40, part 300 of the Code of Federal Regulations
- Resource Conservation and Recovery Act (RCRA; 1976; revised 1980 and 1984)
- Superfund Amendments and Reauthorization Act (SARA; 1986)

KEY TERMS

Comprehensive Environmental Response, Compensation, and Liability Act (CERCLA) - 42 U.S.C., Section 9601 et seq. A Federal law passed in 1980 and modified in 1986 by the Superfund Amendments and Reauthorization Act (SARA). CERCLA, commonly called Superfund, was enacted by congress in response to the dangers posed by past, unknown, or otherwise uncontrolled releases of hazardous substances, pollutants, or contaminants into the environment. CERCLA requires response actions to clean up contamination and to address risks to human health and the environment posed by past releases of hazardous substances.

Community Environmental Response Facilitation Act (CERFA) - This Federal amendment to CERCLA, passed in 1992, requires closing military installations to identify clean or uncontaminated property for transfer to the community for reuse.

Environmental Baseline Survey (EBS) - An EBS is an inventory of all hazardous waste practices associated with a property parcel. The EBS uses document review, site inspections, employee interviews, and, in some cases, sampling to identify former activities which may have involved the use, handling, storage, or disposal of hazardous substances.

feasibility study (FS) - The FS involves the identification and detailed evaluation of potential remedial actions. According to criteria specified in the National Oil and Hazardous Substances Pollution Contingency Plan (NCP), the potential remedial actions are sized down to a reasonable number that undergo detailed analysis to provide adequate information to permit selection of an appropriate remedy for a site or an operable unit.

Finding of Suitability to Lease (FOSL) - The FOSL, prepared by the Department of Defense (DOD), documents properties that are suitable for leasing based on the results of an EBS and any appropriate local community reuse plans.

Finding of Suitability to Transfer (FOST) - The FOST, prepared by the DOD, documents properties that are suitable for transfer based on the results of an EBS and any appropriate local community reuse plans.

parcel - The smallest unit of property designation. Parcels are grouped into zones based on the geographic location and expected land use of each parcel.

Resource Conservation and Recovery Act (RCRA) - 42 U.S.C., Section 6901 et seq. RCRA was originally passed in 1976 and revised in 1980 and 1984. RCRA regulates the handling and use of wastes from generation to ultimate disposal. RCRA is designed to protect human health and the environment from potential hazards of waste disposal, to conserve energy and natural resources, to reduce the amount of generated waste, and to ensure that wastes are managed in an environmentally sound manner.

remedial investigation (RI) - The RI serves as the mechanism at a CERCLA site for collecting data to characterize site conditions, including definition of the nature and extent of contamination, identification of Federal and State applicable or relevant and appropriate regulations (ARARs), and assessment of risk to human health and the environment.

zone - Each zone is a series of parcels grouped together based on the geographic location and expected land use of parcels.

The Road to ROD ... and Beyond

Mary Rose Cassa
Department of Toxic Substances Control
Alameda Point BRAC Cleanup Team

1

The Road to ROD ... and Beyond

- CERCLA process
- California Environmental Quality Act
- Property Transfer
  - Environmental Baseline Survey
    - Preliminary Endangerment Assessment
    - RCRA Facility Investigation

2

CERCLA

- Comprehensive Environmental Response, Compensation, and Liability Act of 1980
- Superfund Amendments and Reauthorization Act (SARA) of 1986
- California Health and Safety Code, Division 20

3

CERCLA Process at Alameda Point

- Site Discovery (1975)
  - Navy Assessment and control of Installation Pollutants (NACIP) - 1980
- Preliminary Assessment / Site Investigation (1982-1988)
- Remedial Investigation / Feasibility Study (1988-)

4

CERCLA at Alameda Point, continued

- PA/SI
  - identify potential disposal or contaminated sites
  - evaluate sites for potential threat to human health and the environment

5

CERCLA at Alameda Point, continued

- RI/FS
  - verify and characterize extent of contamination
  - define potential migration pathways
  - quantify risks
  - evaluate feasibility of potential remedial measures

6

CERCLA at Alameda Point, Continued

- Record of Decision
  - document and provide rationale for selected remedy

7

CERCLA at Alameda Point, continued

- Beyond the ROD
  - Remedial Design
  - Remedial Action
  - Site Closure

Design and implement required corrective measures to mitigate or eliminate confirmed problems

8

CERCLA at Alameda Point, continued

- Community Involvement
  - Community Relations Plan
  - Restoration Advisory Board

9

California Environmental Quality Act (CEQA)

- California Environmental Quality Act of 1973
  - Public Resources Code Sections 21000-21177
  - Environmental Impact Report
  - Negative Declaration
- Citizens contribute to the preservation and enhancement of the environment

10

Property Transfer

- Navy may transfer clean property
- Navy may not transfer contaminated property until remedy is in place & effective
- Navy may obtain permission from the Governor for early transfer

11

Environmental Baseline Survey

- Phase I
  - Inventory of hazardous waste practices
- Phase II
  - Tiered Screening
- Parcel classification

12

Preliminary Endangerment Assessment

- State equivalent to PA/SI
  - completed as part of EBS Phase I and II

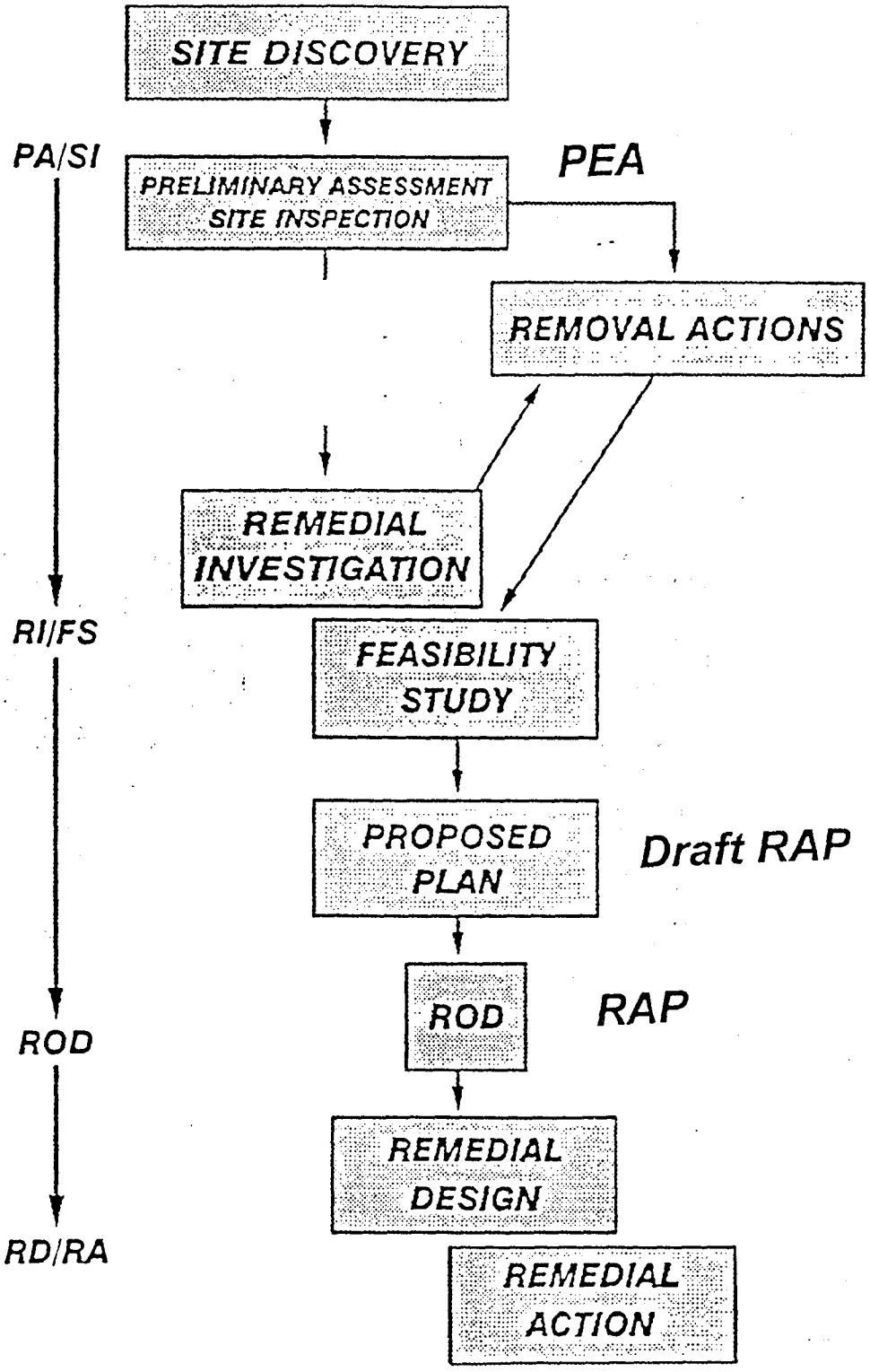
13

RCRA Facility Investigation

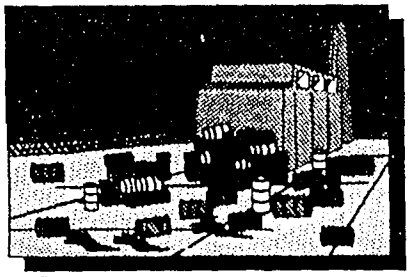
- Completed as part of EBS
  - 25 RCRA sites
  - > 100 hazardous waste generation/storage sites

14

The CERCLA Process



THE CLEANUP PROCESS



SITE
DISCOVERY

INTERIM
REMEDIAL
MEASURES

PRELIMINARY
ENDANGERMENT
ASSESSMENT

REMEDIAL INVESTIGATION

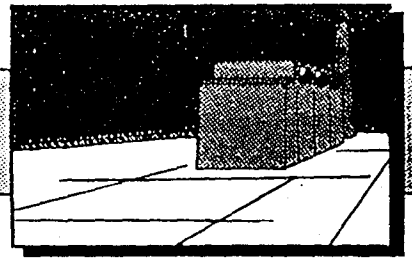
FEASIBILITY STUDY

REMEDIAL
ACTION PLAN

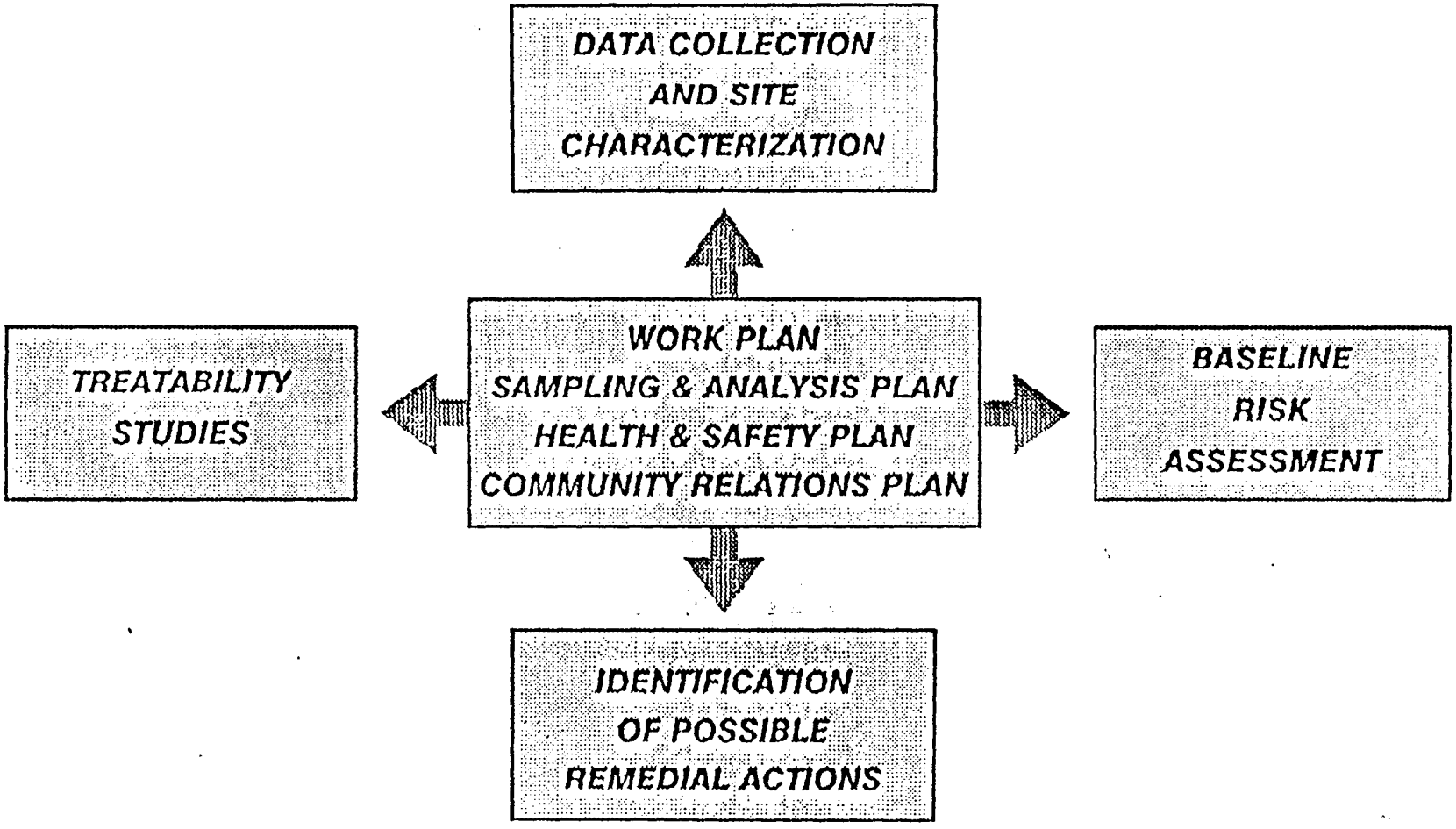
REMEDIAL DESIGN

IMPLEMENTATION

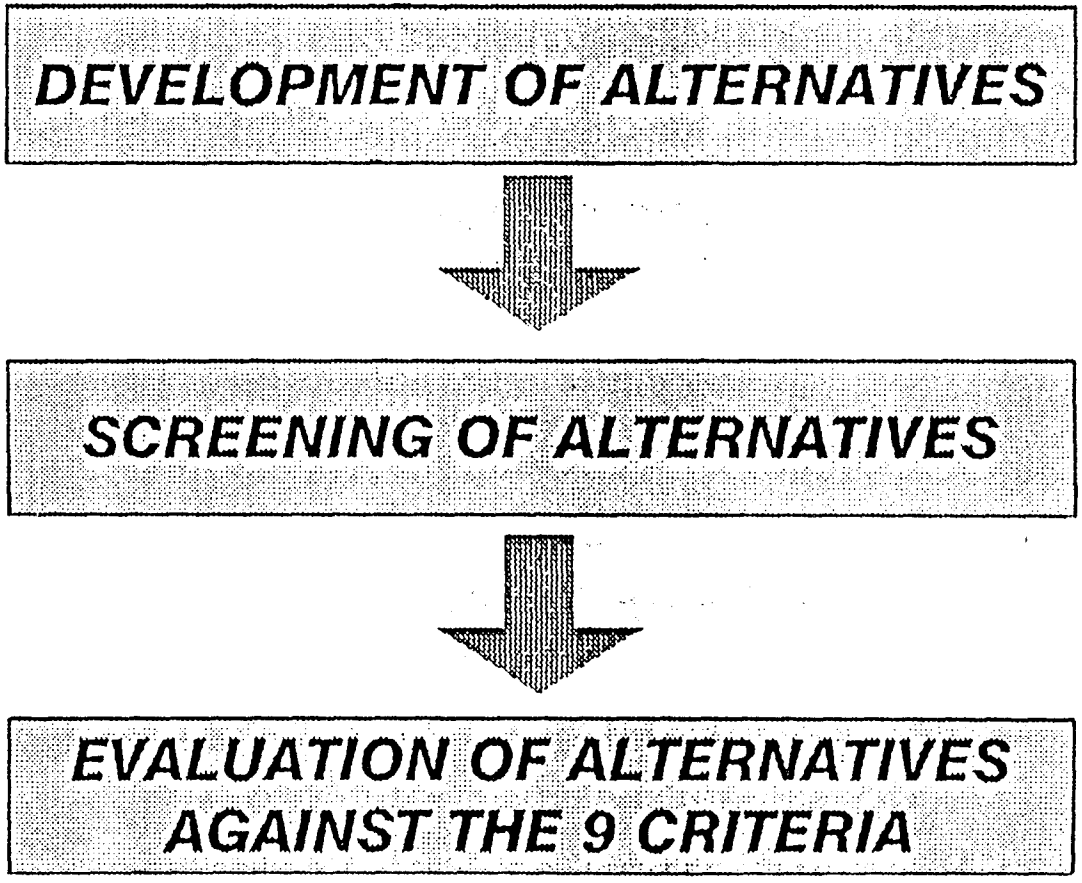
OPERATION
AND MAINTENANCE



Remedial Investigation Activities



Feasibility Study Activities



The Nine Criteria

THRESHOLD

1. PROTECTIVE OF PUBLIC HEALTH AND THE ENVIRONMENT
2. COMPLIANCE WITH ARARs

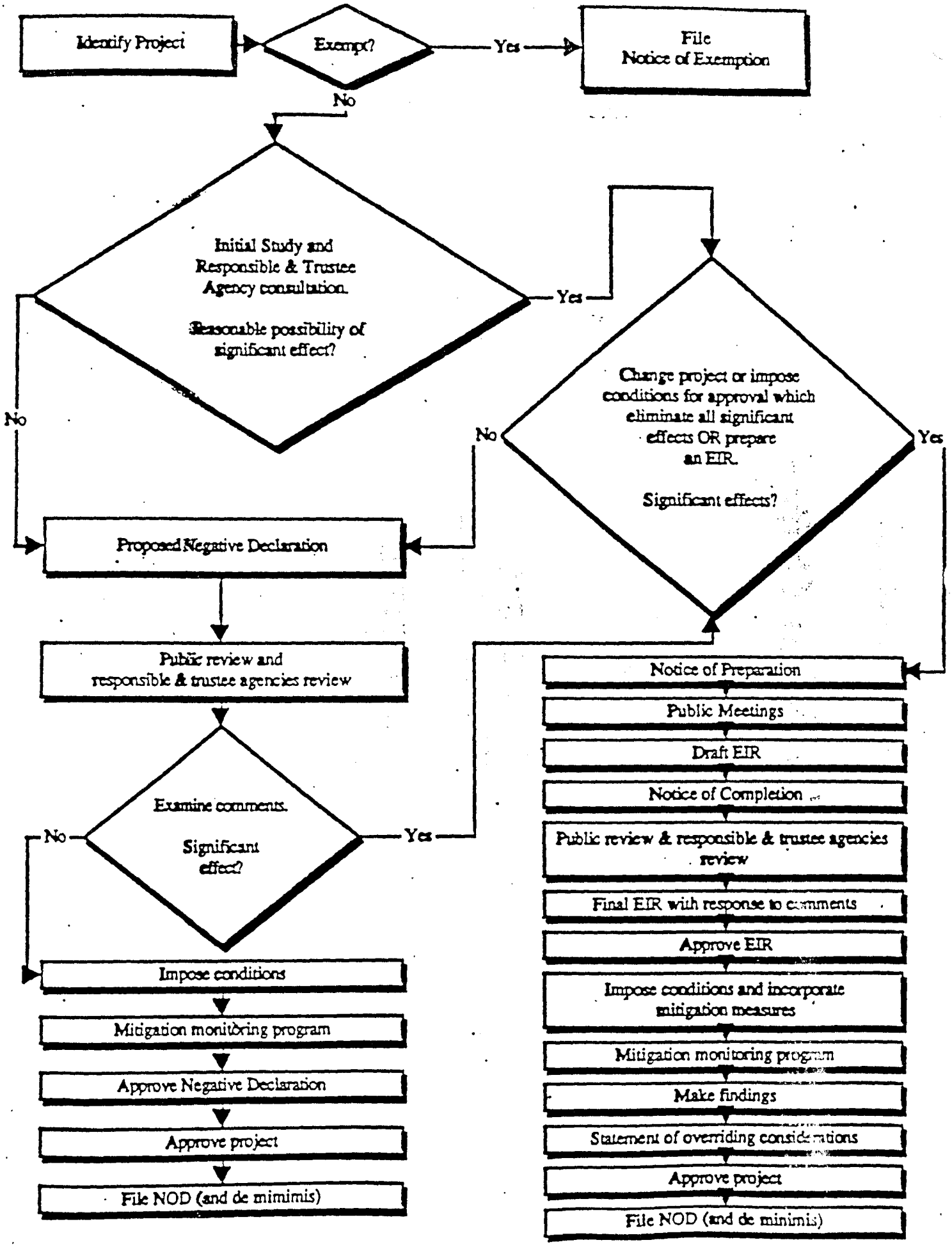
BALANCING

3. LONG TERM EFFECTIVENESS
4. REDUCTION OF VOLUME, MOBILITY, OR TOXICITY THROUGH TREATMENT
5. SHORT TERM EFFECTIVENESS
6. IMPLEMENTABILITY
7. COST

MODIFYING

8. STATE ACCEPTANCE
9. COMMUNITY ACCEPTANCE

California Environmental Quality Act Process



Environmental and Public Health Internet Resources

ATSDR Science Corner
http://atsdr1.atsdr.cdc.gov:8080/cx.html

ATSDR Science Corner is a gateway to environmental health information and resources. It is a simple and user-friendly guide to search the World Wide Web for environmental health information. The primary focus is to find and share global information resources on the linkage between human exposure to hazardous chemicals and adverse human health effects.

ATSDR Minimal Risk Levels for Hazardous Substances
http://atsdr1.atsdr.cdc.gov: 8080/mrls.html

This site lists ATSDR's minimal levels (MRLs) for hazardous substances. An MRL is an estimate of the daily human exposure to a hazardous substance that is likely to be without appreciable risk of adverse, noncancer health effects over a specified duration of exposure.

Combined Health Information Database (CHID)
http://chid.nih.gov

CHID is a federally produced bibliographic database of health information, education, and promotion resources. Current information producers include the Centers for Disease Control and Prevention , National Institutes of Health, Office of Disease Prevention and Health Promotion, and the Health Resources and Services Administration. The database contains descriptions of health education and promotion programs underway at the state and local levels. It provides bibliographic citations and abstracts of journal articles, books, reports, pamphlets, audiovisuals, and other health resources. It also provides program contacts and source and availability information so that users can follow up directly. CHID is updated in January, April, July, and October. If you would like to share your program efforts through the database with other health professionals, contact the National Center for Chronic Disease Prevention and Health Promotion (NCCDPHP) at NCCDPHP/TIESB, 4770 Buford Highway, NE, MS K13, Atlanta, GA 30341-3724 or call (770) 488-5080.

Environmental Health Policy Committee
http://web.health.gov/environment

The Environmental Health Policy Committee (EHPC) of the US Department of Health and Human Services (DHHS) promotes the exchange of environmental health information and provides review, advice, and consensus facilitation where necessary on environmental health research, exposure assessments, risk assessments, and risk management procedures for DHHS. The site contains EHPC reports, publications, and policy statements; meeting and training information; and a search engine linked to environmental databases.

National Environmental Publications Information
http://www.epa. gov/clariton/index.html

More than 6,000 US Environmental Protection Agency (EPA) publications are available for searching, viewing, and printing through this site. Links are available to Technical Information Packages (TIPS); environmental terms; and the publications catalog of EPA's National Center for Environmental Publications and Information.

Medicine & Public Health: The Power of Collaboration
http://www.nyam.org/pubhlth/medpub.html

This monograph is the result of an 18-month study that included focus groups, key informant inter-

Continued on page 10

Internet Resources

Continued from page 9

views, and an analysis of more than [illegible] cases of medicine and public [illegible]h collaboration around the [illegible]ntry. It is a tool that health professionals can use to improve health and enhance their own effectiveness and economic stability. The monograph is part of the Medicine and Public Health Initiative (http://www.sph.uth.tmc.edu/mph/index.html) of the American Medical Association and the American Public Health Association for bridging the gap between the medicine and public health sectors. ■

Meeting #1
Community/Environmental Justice Discussion: EPA's Lead "TSCA 403 Rulemaking"

Speakers:

Introduction to the proposed rule
Max Weintraub, EPA, Region 9

Health hazards associated with lead in soil
*SF Childhood Lead Prevention Program

Findings from Hunters Point/Bayview
*Prof. Pete Palmer, SFSU

Overview of San Francisco's ordinances on lead
*Neil Gendel, Healthy Children Organizing Project

Discussion, Next Steps, and Questions
Chris Shirley, Arc Ecology

Date: Wednesday, November 4, 1998

Time: 6pm to 7:30pm

Place: San Francisco State University Downtown Center
425 Market St. 26th floor @ Room 2602

Hosted by: Arc Ecology
The Center for Public Environmental Oversight, SFSU
Urban Habitat Program, The Tides Center

* Invited speakers

Meeting #2
EPA Sponsored Public Meeting on Lead Standards

DATE: ~~Nov. 16, 1998~~ TO BE RESCHEDULED FOR EARLY DECEMBER

TIME: 1:00 pm - 5:00 pm (dinner break) reconvene from 6:00 pm to 9:00 pm CALL 1-800-424-LEAD FOR INFORMATION

PLACE: Grand Hyatt on Union Square, 345 Stockton

PLEASE call to pre-register and to confirm the location of the meeting. Participants will be able to register for the meeting through the National Lead Information Center (NLIC) toll free number 1-800-424-LEAD.

ATTACHMENT D

NAVAL AIR STATION ALAMEDA
RESTORATION ADVISORY BOARD
ADDITIONAL MATERIALS

3 letters from Patrick Lynch to the Navy dated 11/08/98

CLEARWATER REVIVAL COMPANY

305 Spruce Street
Alameda, CA 94501

(510) 522-2165
FAX (510) 522-8520
email: ClearH2O.Rev@eworld.com

98-3007-00

November 8, 1998

Mr. Steve Edde
Alameda Point Naval Air Station
950 West Mall Square
Alameda, CA 94501

Ms. Lynn Suer
US EPA Region IX
75 Hawthorne Street
San Francisco, CA 94105

Ms. Mary Rose Cassa
Department of Toxic Substance Control
900 Heinz St. Suite 200
Berkeley, CA

Ms. Anna Marie Cook
US EPA Region IX
75 Hawthorne Street
San Francisco, CA 94105

Public Participation Requirements
Installation Restoration Site 7
Naval Exchange Service Station
Alameda Point Naval Air Station

Dear Base Cleanup Team Members:

In a June 30, 1998 letter, I notified the Base Cleanup Team (BCT) that soil excavations at Installation Restoration Sites are required to complete the public participation requirements for Non-time Critical Removal Actions. I was compelled to contact the Alameda Fire Department about a public health emergency on November 8, 1998, because the BCT ignored this mandate for public participation.

Had a public comment period been held for the underground storage tank removal work at IR Site 7, health and safety may have received some form of consideration. I could also have commented on the consequence of leaving a partially dismantled gasoline tank in an excavation that eventually flooded.

Fortunately when I contacted the Fire Department the tank was still filling with water. Though there was an imminent threat of gasoline pooling in the shallow excavation when the tank filled, an opportunity for emergency stabilization measures existed.

As you are already aware, the widespread contamination and uncontrolled conditions at IR Site 7 are exposing the public to chemicals known to the State of California to cause cancer and birth defects. These exposures are occurring outside of the work site boundary, and outside the installation boundary. Despite these exposures that began when the tank was dismantled

four weeks ago, the tank removal contractor has not made the required Proposition 65 warnings.

IR Site 7 truly epitomizes the current status of the Environmental Restoration Program at Alameda Point. I am doing the regulator's job. The Fire Department, if it stabilized the situation at IR Site 7, is doing the Navy's job. When will this misappropriation of costs onto the residents of Alameda end? When an effective avenue for public participation in the environmental restoration program at Alameda Point is created.

Sincerely,

Patrick G. Lynch, P.E.
Civil/Chemical Engineer

cc: Mr. John Spafford, Restoration Advisory Board

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Request for Analytical Data
Installation Restoration Site 25
Estuary Park Remedial Investigation
Alameda Point Naval Air Station

Dear Base Cleanup Team Members:

I am requesting a copy of all chemical analysis results for the soil and groundwater samples that were collected from Estuary Park over 14 days ago. As you are aware, the Base Cleanup Team (BCT) initiated this remedial investigation in response to concerns I raised about this site at a February 1998 Restoration Advisory Board meeting.

While Estuary Park was the specific concern, the more over-riding concern is the years of delays in making sample results available to the public and arriving at a cleanup plan. I look forward to receiving the sample results on Monday, November 9, 1998.

Sincerely,

Patrick G. Lynch, P.E.
Civil/Chemical Engineer

cc: Mr. John Spafford, Restoration Advisory Board

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Poisoning of San Francisco Bay
Radioactive Materiel Removal Action
Alameda Point Naval Air Station

Dear Base Cleanup Team Members:

As both regulators and the responsible party, the Base Cleanup Team (BCT) has an obligation to investigate and prosecute the individuals responsible for the discharge of radioactive contaminated water from the Alameda Point Naval Air Station into storm drains that discharge into San Francisco Bay. The fact that this illegal action was undertaken by individuals directly, or indirectly, employed by the US Government, constitutes a misuse of federal funds.

On November 7, 1998, and again on November 8, 1998, a trash pump and four-inch hosing was used to transfer silt-laden water from a radioactive materiel excavation on the west side of Building 5 into a storm sewer catch basin that drains to the bay. These observations were made following an overnight rain storm on November 8, 1998, which had dropped 0.82 inches of precipitation (as measured at the Oakland Museum), and November 9, 1998 down pour that caused significant flooding at Alameda Point.

As the silt around the storm drain and hose disconnects will verify, this radioactive materiel removal action was a flagrant violation of the Clean Water Act, has undone the previously completed multi-million-dollar storm drain cleaning, and has distributed radiation into the environment that was the target of the removal action. The uncontrolled work site speaks for itself.

Regulatory complacency and the arrogance of the US Navy have deprived nearby residents of the legal protections that are enjoyed by more affluent

communities throughout California. Since May 1996, I have repeatedly made complaints about similar violations. The US Navy, US EPA, and DTSC have failed to respond in a meaningful way to any of these previous complaints and as a result the health of my community continues to deteriorate. With the wet-weather, the BCT must dedicate adequate resources to ensure that pollution controls are used at all Alameda Point work sites.

I would also suggest that each of the BCT members refer to their respective agency's policy on environmental racism. I am still waiting to see the impact of these policies in Alameda.

Sincerely,

Patrick G. Lynch, P.E.
Civil/Chemical Engineer

cc: Mr. John Spafford, Restoration Advisory Board